

Combining Transformations

	Affects what axis?	What we expect or opposite?
Change inside $f()$		
Change outside $f()$		

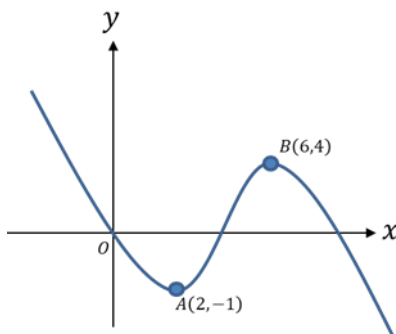
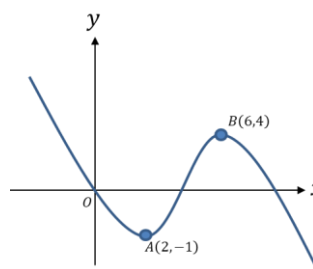
In L6 we studied transformations. Here we are asked to combine more than one transformation to a function.

Examples

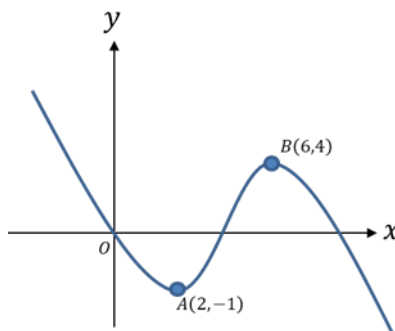
1. Here is a graph of $y = f(x)$.

Sketch the graph of:

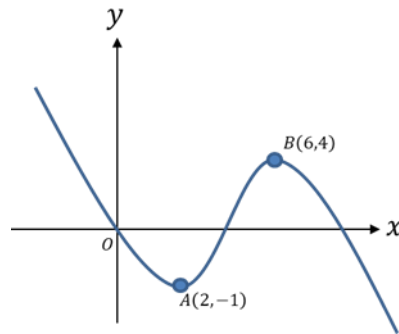
a) $y = 2f(x + 2)$



a) $y = -f(2x)$



b) $y = |f(-x)|$



Test Your Understanding

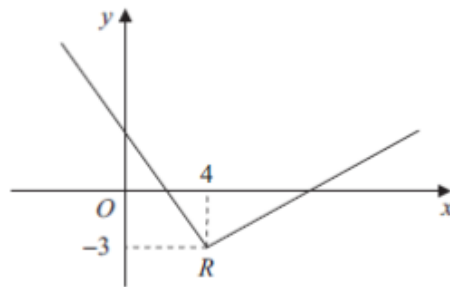


Figure 1

Figure 1 shows part of the graph of $y = f(x)$, $x \in \mathbb{R}$.

The graph consists of two line segments that meet at the point $R(4, -3)$, as shown in Figure 1.

Sketch, on separate diagrams, the graphs of

(a) $y = 2f(x + 4)$, (3)

(b) $y = |f(-x)|$. (3)

On each diagram, show the coordinates of the point corresponding to R .

